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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,260

09/26/2003

Fang Wang

112056-0150

8811

24267 7590 04/23/2008
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EXAMINER

BRUCKART, BENJAMIN R

ART UNIT

PAPER NUMBER

2146

MAIL DATE

DELIVERY MODE

04/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/672,260	Applicant(s) WANG ET AL.	
	Examiner BENJAMIN R. BRUCKART	Art Unit 2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Claims 36-40 are pending in this Office Action.

Claims 1-35 are cancelled.

The objection to the specification is withdrawn.

The 35 U.S.C. 112 rejections are withdrawn based on amendment.

The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Response to Arguments

Applicant's arguments filed in the amendment filed 3/4/08 and 12/18/07, have been fully considered but are moot in view of new grounds of rejection. The reasons set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2004/0151188 by Maveli et al in view of "A Highly Available Network File Server" (herein after "HA-NFS") (Applicant IDS).

Regarding claim 36, the Maveli reference teaches a method comprising:

detecting a failure of a primary virtual port on a first physical port of a first server, wherein the primary virtual port has an identity (Maveli: page 3, para 28);

activating a secondary virtual port on a second physical port of the first server, the second physical port adapted to support two or more virtual ports that share the second physical port (Maveli: page 3, para 28; Fig 6A to 6C);

configuring the secondary virtual port with the identity of the failed primary virtual port (Maveli: page 3, para 26; the LUNs and WWNs stay the same but are moved to the different physical ports); and

servicing one or more storage devices through the secondary virtual port on the first server (Maveli: Fig. 3, storage arrays; page 2, para 22; page 4, para 34).

The Maveli reference fails to teach storage devices owned by a first server.

However, the HA-NFS reference teaches devices owning storage data (HA-NFS: architecture: page 200, col. 2, para 1-2; Fig 1) to have designated servers controlling and serving data (HA-NFS: architecture: page 200, col. 2, para 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method as taught by Maveli to include owned storage data as taught by HA-NFS in order to have designated servers controlling and serving data (HA-NFS: architecture: page 200, col. 2, para 1).

Regarding claim 37, the method of claim 36, wherein detecting the failure is in response to initiating a failover procedure during a scheduled maintenance on the first server (Maveli: page 3, para 28; failure).

Regarding claim 38, the method of claim 36, the Maveli reference teaches detecting a failure.

The Maveli reference fails to teach using heartbeat messages.

However, the HA-NFS reference teaches detecting a failure in the first server comprises: detecting a lack of a heartbeat signal from the first server at a second server (HA-NFS: page 201, para 3-4; ping) in order to initiate recovery from failover (HA-NFS: page 201, col. 1, take-over).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method as taught by Maveli to include detecting failure by heartbeat messages as taught by HA-NFS in order to initiate recovery from failover (HA-NFS: page 201, col. 1, take-over).

Regarding claim 39, the Maveli reference teaches the method of claim 36 with unregistering mappings between virtual and physical ports (Maveli: page 4, para 33).

The Maveli reference fails to teach details about re-integration.

However, the HA-NFS teaches

determining that the primary virtual port has been recovered (HA-NFS: page 201, col. 2, para 4; re-integration);

terminating service requests to the secondary virtual port (HA-NFS: page 201, col. 2, para 4; re-integration – page 202);

deactivating the secondary virtual port (HA-NFS: page 201, col. 2, para 4; re-integration; stops impersonation); and

servicing the storage devices owned by the first server through the primary virtual port (HA-NFS: page 201, col. 2, para 4 – page 202) in order to resume providing highly available network data in response to requests (HA-NFS: page 199, col. 2).

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Regarding claim 40, the Maveli reference teaches a computer readable medium including program instructions when executed operable to:

detecting a failure of a primary virtual port on a first physical port of a first server, wherein the primary virtual port has an identity (Maveli: page 3, para 28);

activating a secondary virtual port on a second physical port of the first server, the second physical port adapted to support two or more virtual ports that share the second physical port (Maveli: page 3, para 28; Fig 6A to 6C);

configuring the secondary virtual port with the identity of the failed primary virtual port (Maveli: page 3, para 26; the LUNs and WWNs stay the same but are moved to the different physical ports); and

servicing one or more storage devices through the secondary virtual port on the first server (Maveli: Fig. 3, storage arrays; page 2, para 22; page 4, para 34).

The Maveli reference fails to teach storage devices owned by a first server.

However, the HA-NFS reference teaches devices owning storage data (HA-NFS: architecture: page 200, col. 2, para 1-2; Fig 1) to have designated servers controlling and serving data (HA-NFS: architecture: page 200, col. 2, para 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method as taught by Maveli to include owned storage data as taught by HA-NFS in order to have designated servers controlling and serving data (HA-NFS: architecture: page 200, col. 2, para 1).

REMARKS

In the request for consideration, the applicant presented new claims directed to a single server with multiple physical ports and more than one virtual port.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-

3982. The examiner can normally be reached on 9:00-5:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin R Bruckart
Examiner
Art Unit 2146

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